CLAIMS

What is claimed is:

1. A method of storing objects in a nonvolatile memory comprising:

allocating space within a block erasable nonvolatile memory for an object, wherein the allocated space is within a single block;

storing a first instance of the object within the allocated space; and

storing a superseding second instance of the object within the allocated space without erasing any of the allocated space, wherein each instance of the object is a fixed size, wherein the allocated space exceeds a multiple of the fixed size.

2. The method of claim 1, further comprising:

updating status information within the allocated space to reflect that the second instance supersedes the first instance.

3. The method of claim 1, further comprising:

storing a header within a same block as the allocated space, wherein the header identifies a location of the allocated space within the same block.

4. The method of claim 1, wherein the nonvolatile memory is a flash electrically erasable programmable read only memory.

5. A method comprising:

receiving data for storage in a nonvolatile memory comprising a plurality of blocks;

selecting a storage structure for the data according to a size (z) of the data, a minimum number of instances (m), a maximum single instance size ($s*g$), and an allocation granularity (g);

storing the data in the selected structure within the nonvolatile memory.

6. The method of claim 5, wherein selecting the storage structure includes selecting a multiple instance structure, if $z \leq \frac{g - \text{overhead}}{m}$, wherein the overhead is an amount of space required as overhead for m instances within the multiple instance structure.

7. The method of claim 5, wherein selecting the storage structure further includes selecting a single instance structure, if $z \bullet s*g$ for s expressed as a number of granular units.

8. The method of claim 5, wherein selecting the storage structure further includes fragmenting the data into a plurality of data fragments for storage, if $z > s*g$ for s expressed as a number of granular units.

9. The method of claim 8, wherein storing the data includes:

storing the data fragments using a sequence table indicative of an order and a location of the data fragments, if a sequence table size does not exceed a maximum sequence table size; and

storing a header for each data fragment and the sequence table, wherein the header is located in a same block as its associated data fragment and sequence table, wherein within a given block the headers are stored contiguously proceeding from a first end to a

second end of the given block, wherein objects identified by the headers are stored contiguously proceeding from the second end to a first end of the given block.

10. The method of claim 8, wherein storing the data further includes:

storing the data fragments using sequence table fragments and a group table, if a sequence table size exceeds the maximum sequence table size, wherein the sequence table fragments are indicative of an order and a location of the data fragments, wherein the group table is indicative of an order and a location of the sequence table fragments; and

storing a header for each data fragment, sequence table fragment, and group table, wherein the header is located in a same block as its associated data fragment, sequence table fragment, and group table, wherein within a given block the headers are stored contiguously proceeding from a first end to a second end of the given block, wherein objects identified by the headers are stored contiguously proceeding from the second end to a first end of the given block.

11. A method for a memory device comprising:

duplicating a power-loss recovery (PLR) status field such that the duplicated PLR status field is used if the PLR status field is invalid.

12. The method of claim 11, wherein duplicating the PLR status field includes:

writing a same value in the PLR status field in the duplicated PLR status field.

13. The method of claim 12, wherein writing the same value includes writing the same value in the PLR status filed in the duplicated PLR status field in a subsequent bus cycle.

14. The method of claim 11, further comprising:

determining which of the PLR status field or the duplicated PLR status field contains a greater amount of "1" bits for use in a power-loss recovery operation.

15. The method of claim 11, wherein duplicating the power-loss recovery (PLR) status field includes duplicating the power-loss recovery (PLR) status field a flash memory device.